

REMARKS

This Response is offered in reply to the office action of July 24, 2003. Applicants enclose a petition and fee for a two month time extension.

In paragraph 3 of the office action, claims 1-7, 9, 10, 12, and 13 are rejected under 35 USC 103(a) in view of Kreig EP 639 539 taken with the Hwa US Patent 3 661 994.

Applicants have amended claim 1 in a manner believed to distinguish over the above combination of cited references.

The features recited in pending claim 1 are not disclosed or suggested in the cited references taken alone or together.

For example, Applicants point out to the examiner that the '539 document does not disclose Applicants' claimed sanitary-ware moulding composition having in combination, 50 to 85 weight % of inorganic filler particles (based on the moulding composition) and elastomer particles or elastomer particle aggregates having a particle size smaller than 100 μm in an amount in the range of 5% by weight to less than 20% by weight (based on the mass of the syrup) effective to impart to a sanitary-ware component molded from the moulding composition improved resistance to scratching as compared to a sanitary-ware component molded from a similar moulding composition devoid of the elastomer particles or elastomer particle aggregates.

Applicants refer the examiner to page 11, last paragraph of the English translation of the '539 EP document where the particles PP are defined by their chemistry or composition. In particular, the English translation states there that the particulate polymerizate PP preferably comprises "an acrylic resin, in particular PMMA or a copolymerizate of MMA...". The document thus expressly refers to acrylic resins and other polymers but does not disclose elastomer particles or elastomer particle aggregates as set forth in Applicants' claims. Thus, the '539 patent is grossly deficient with respect to Applicants' claims.

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Applicants further direct the examiner to page 12 of the English translation of the '539 document where the document indicates that polymer beads or particles PP of suitable size can be made by suspension (pearl) polymerization process as described in the Fink German DE 2135828. The '539 document does not disclose that the particles PP have the composition of the particles of the Fink '828 document, but instead that the particles PP can be made in the suitable particle size using the suspension (pearl) polymerization process of the Fink '828 document.

Also note should be taken that the Fink '828 document does not relate to a sanitary-ware moulding composition but instead relates to elastomeric particles dispersed in water for application to textile webs and other web materials. The examiner's reliance on the Fink '828 document again is believed misplaced and incorrect.

As mentioned above, page 11 of the English translation of the '539 EP document expressly defines the particles PP by their chemistry or composition as comprising acrylic resins and other polymers, but does not disclose elastomer particles or elastomer particle aggregates as set forth in Applicants' claims.

Applicants refer the examiner to page 2, paragraphs 3 and 4 of Applicants' specification where the moulding composition is described as comprising the combination of the recited amount of inorganic filler and the elastomer particles or elastomer particle aggregates having a particle size smaller than 100 μm in an amount in the range of 5% by weight to less than 20% by weight in the syrup effective to improve resistance of the molded sanitary-ware component to scratching in a manner not disclosed in the EP '539 document or the Fink '828 document. Neither document discusses how to improve resistance of a molded sanitary-ware component to scratching as set forth in pending claim 1. Applicants have defined a particular combination of inorganic filler and elastomer particles or particle aggregates in the syrup to achieve improved

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resistance to scratching not disclosed or suggested by the EP '539 document or the Fink '828 document. The cited documents are utterly silent in this regard.

Moreover, Applicants believe they have achieved a result that is wholly unexpected and surprising in that the inclusion of elastomer particles or particle aggregates together with inorganic filler in the manner recited in pending claim 1 is effective to produce improved resistance of a molded sanitary-ware component to scratching as compared to a sanitary-ware component molded from a similar moulding composition devoid of the elastomer particles or elastomer particle aggregates. For example, the '539 document and the '828 document do not discuss or teach anything about how to improve resistance of a molded sanitary-ware component to scratching.

Applicants believe one skilled in the art would not be led to include elastomer particles or particle aggregates in the syrup to improve scratch resistance as argued by the examiner based on the cited '994 patent. For example, the '994 patent does not teach inclusion of inorganic filler particles together with elastomer particles or aggregates. Moreover, column 1, lines 30-34 of the cited '994 patent argues against including rubber particles to beneficially affect properties other than impact strength such that the examiner's proposed combination conflicts with the '994 patent itself. Applicants' claimed result flies in the face of logic wherein one skilled in the art would logically think that relatively hard inorganic filler particles, rather than relatively soft elastomeric particles or aggregates, should be included to improve scratch resistance. The '994 patent simply does not support and instead teaches away from making the combination proposed by the examiner.

The examiner's proposed use of the multi-graft copolymer particles of the '994 patent in the '539 document based on a

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reasonable expectation of success is an incorrect basis for combining the references and violative of the *Graham v. Deere* decision, especially since the '994 patent does not relate to moulding of sanitary-ware components and since neither cited reference discloses or suggests the combination of inorganic filler and elastomer particles or elastomer particle aggregates in a methyl-methacrylate-based syrup and achievement of Applicants' unexpected and surprising results set forth in the claims.

Applicants fail to see how there can be a reasonable expectation of improvements achieved by Applicants' sanitary-ware moulding composition when none of the cited references discloses or suggests the recited combination of inorganic filler and elastomer particles or elastomer particle aggregates in the syrup, and none of the cited references discusses how to improve resistance of a molded sanitary-ware component to scratching.

Reconsideration of the Section 103 rejection of claims 1-7, 9, 10, 12, and 13 is requested.

In paragraph 4 of the office action, claims 1-10, 12, and 13 are rejected under 35 USC 103(a) in view of *Kreig* EP 639 539 taken with the *Hofmann* US Patent 4 180 529 or the *Henton* US document WO 88/05450.

The deficiencies of the *Kreig* EP '539 document are pointed out above.

The cited secondary '529 patent and '450 document both suffer from the same deficiencies as the '994 patent in that neither discloses or suggests Applicants' recited combination of inorganic filler and elastomer particles or elastomer particle aggregates in a methyl-methacrylate-based syrup effective to impart to a sanitary-ware component molded from the moulding composition improved resistance to scratching as compared to a sanitary-ware component molded from a similar moulding composition devoid of the elastomer particles or elastomer particle aggregates.

Both the cited '529 patent and '450 document are devoid of inorganic fillers in an amount of 50 to 85 % by weight.

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There is no motivation or teaching in any of the cited references that would lead one skilled in the art to employ elastomer particles or elastomer particle aggregates in the '539 document in a manner effective to impart to a sanitary-ware component molded from the moulding composition improved resistance to scratching as compared to a sanitary-ware component molded from a similar moulding composition devoid of the elastomer particles or elastomer particle aggregates.

The examiner's proposed use of the particles of the secondary '529 patent or '450 patent in the '539 document based on a reasonable expectation of success is an incorrect basis for combining the references and violative of the *Graham v. Deere* decision, especially when none of the cited references discloses or suggests the combination of inorganic filler and elastomer particles or elastomer particle aggregates in a methyl-methacrylate-based syrup.

Since not one of the cited references discusses how to improve resistance of a molded sanitary-ware component to scratching, Applicants fail to see how there can be a reasonable expectation of improvements achieved by Applicants' sanitary-ware moulding composition, especially when none of the cited references discloses or suggests the combination of inorganic filler and elastomer particles or elastomer particle.

Reconsideration of the Section 103 rejection of claims 1-10, 12, and 13 is requested.

In paragraph 5 of the office action, claims 1-13 are rejected under 35 USC 103(a) in view of *Kreig EP 639 539* taken with the *Alsmarraie US Patent 5 087 662*.

The deficiencies of the *Kreig EP '539* document are pointed out above.

The '662 patent does not disclose or suggest Applicants' recited combination of inorganic filler in an amount from 50 to 85%

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by weight of the sanitary-ware moulding composition, and elastomer particles or elastomer particle aggregates having a particle size smaller than 100 μm in an amount in the range of 5% by weight to less than 20% by weight, expressed in terms of the mass of the syrup, effective to impart improved resistance of a molded sanitary-ware component to scratching as compared to a sanitary-ware component molded from a similar moulding composition devoid of the elastomer particles or elastomer particle aggregates.

The examiner's proposed use of the core/shell particles of the '662 patent in the '539 document based on a reasonable expectation of success is an incorrect basis for combining the references and violative of the *Graham v. Deere* decision. Neither of the cited references discloses or suggests Applicants' sanitary-ware moulding composition comprising the recited combination of inorganic filler and the elastomer particles or elastomer particle aggregates effective to improve resistance of the molded sanitary-ware component to scratching. Neither of the cited references discusses how to improve resistance of a molded sanitary-ware component to scratching. Applicants fail to see how there can be a reasonable expectation of improvements achieved by Applicants' moulding composition when neither of the cited references discloses or suggests the combination of Applicants' recited combination of inorganic filler and elastomer particles or elastomer particle aggregates in the syrup and neither of the cited references discusses how to improve resistance of a molded sanitary-ware component to scratching and abrasion.

Reconsideration of the Section 103 rejection of claims 1-13 is requested.

Applicants believe the pending claims are in condition for allowance and action to that end is requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Edward J. Timmer', is written over a horizontal line.

Edward J. Timmer Reg. No. 27402

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CERTIFICATE OF MAILING

I hereby certify that this correspondence and enclosures are being deposited with the United States Postal Service as first class mail under 37 CFR 1.8 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 19, 2003.

Edward J. Timmer